

CLAIMS

1. A flexible fluorine-containing material which comprises (a) a fluorine-containing multi-segment polymer having an elastomeric
5 fluorine-containing polymer chain segment A and a non-elastomeric fluorine-containing polymer chain segment B in which the elastomeric fluorine-containing polymer chain segment A comprises not less than 90 % by mole of a perhaloolefin unit and (b) a fluorine-containing resin having a crystalline melting point or glass transition temperature of not
10 less than 150°C, in which a weight ratio (a)/(b) is 1/99 to 99/1.

2. The flexible fluorine-containing material of Claim 1, wherein said fluorine-containing resin (b) has a crystalline melting point or glass transition temperature of not less than 250°C.

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3. The flexible fluorine-containing material of Claim 1 or 2, wherein said weight ratio (a)/(b) is 20/80 to 99/1.

4. The flexible fluorine-containing material of any of Claims 1
20 to 3, wherein the elastomeric fluorine-containing polymer chain segment A contained in the fluorine-containing multi-segment polymer (a) is non-crystalline and has a glass transition temperature of not more than 25°C.

25 5. The flexible fluorine-containing material of any of Claims 1 to 4, wherein the non-elastomeric fluorine-containing polymer chain segment B contained in the fluorine-containing multi-segment polymer

(a) is a polymer chain having a crystalline melting point or glass transition temperature of not less than 150°C.

6. The flexible fluorine-containing material of Claim 5,
5 wherein the non-elastomeric fluorine-containing polymer chain segment B contained in the fluorine-containing multi-segment polymer (a) is a polymer chain having a crystalline melting point or glass transition temperature of not less than 250°C.

10 7. The flexible fluorine-containing material of any of Claims 1 to 6, wherein the elastomeric fluorine-containing polymer chain segment A contained in the fluorine-containing multi-segment polymer (a) is a polymer chain comprising 50 to 85 % by mole of tetrafluoroethylene and 15 to 50 % by mole of perfluoro(alkyl vinyl ether) and/or
15 hexafluoropropylene.

8. The flexible fluorine-containing material of any of Claims 1 to 7, wherein the non-elastomeric fluorine-containing polymer chain segment B contained in the fluorine-containing multi-segment polymer
20 (a) is a polymer chain comprising more than 85 % by mole and not more than 100 % by mole of tetrafluoroethylene and 0 % by mole or less than 15 % by mole of a compound of the formula (1):



25 wherein R_f^1 is CF_3 or OR_f^2 , in which R_f^2 is a perfluoroalkyl group having 1 to 5 carbon atoms.

9. The flexible fluorine-containing material of any of Claims 1 to 8, wherein the fluorine-containing resin (b) is one or more members selected from perfluoro fluorine-containing resins.

5 10. The flexible fluorine-containing material of Claim 9, wherein the fluorine-containing resin (b) is one or more members selected from polytetrafluoroethylene, tetrafluoroethylene/perfluoro(alkyl vinyl ether) copolymer, tetrafluoroethylene/hexafluoropropylene copolymer and
10 tetrafluoroethylene/hexafluoropropylene/perfluoro(alkyl vinyl ether) copolymer.

15 11. The flexible fluorine-containing material of any of Claims 1 to 10, wherein a proportion of the non-elastomeric fluorine-containing polymer chain segment B contained in the fluorine-containing multi-segment polymer (a) is not more than 25 % by weight based on the whole segment polymer (a).

Added A4